

- 1 1. A pulley system comprising:
2 a rotating tube having first and second apertures and a passageway extending
3 within the tube, wherein the tube is configured to receive a cord therethrough;
4 a pulley having a channel configured to receive the cord; and
5 means for aligning the channel of the pulley with the passageway of the tube,
6 wherein the means for aligning is coupled to the tube and to the pulley, such that as the
7 tube rotates the pulley moves therewith, and wherein a portion of the channel of the
8 pulley is positioned within the tube.
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11 2. A pulley system as recited in claim 1, further comprising a cord extending along
12 the tube and through the first and second apertures, and wherein the second aperture is located
13 in a sidewall of the tube.
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15 3. A pulley system as recited in claim 1, further comprising:
16 a second pulley having a second channel; and
17 means for aligning the second channel with the tube.
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19 4. A pulley system as recited in claim 1, wherein the means for aligning the
20 channel of the pulley with the passageway of the tube comprises an arm coupled to the tube, the
21 pulley being rotatably mounted on the arm.
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1 5. A pulley system comprising:
2 a rotating tube having first and second apertures and a passageway extending
3 within the tube, wherein the tube is configured to receive a cord therethrough;
4 a pulley having a channel configured to receive the cord; and
5 an arm configured to align the channel of the pulley with the passageway of the
6 tube, wherein the arm is coupled to the tube and to the pulley such that as the tube
7 rotates the pulley moves therewith, and wherein a portion of the channel of the pulley is
8 positioned within the tube.

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10 6. A mechanism as recited in claim 5, wherein the arm is an articulating arm of an
11 exercise device.

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13 7. A pulley system as recited in claim 5, further comprising a cord extending along
14 the tube and through the first and second apertures, and wherein the second aperture is located
15 in a sidewall of the tube.

1 8. A pulley system, comprising:
2 a rotatable tube having first and second apertures, wherein the second aperture is
3 located in a sidewall of the tube;
4 a cord extending through the first and second apertures;
5 a fixed pulley having a first channel corresponding to the first aperture such that
6 the first channel receives the cord and a portion of the cord is located within a
7 passageway of the tube; and
8 a selectively orientable pulley having a second channel configured such that the
9 second channel receives the cord.

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11 9. A pulley system as recited in claim 8, wherein the second pulley is selectively
12 orientable with relation to the fixed pulley.

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14 10. A pulley system as recited in claim 8, wherein a portion of the selectively
15 orientable pulley is inserted into the second aperture to align the second channel with the
16 passageway of the tube.

1 11. A pulley mechanism comprising:
2 a first pulley;
3 a second pulley;
4 a tube having first and second apertures, wherein the second aperture is located
5 in a sidewall of the tube;
6 an arm coupled to the tube at one end, the other end of the tube being pivotably
7 coupled to a support, the first pulley also being coupled to the support, such that a cord
8 extends along the first pulley, through the first aperture of the tube, out the second
9 aperture of the tube and along the second pulley.

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11 12. A mechanism as recited in claim 11, wherein at least a portion of the second
12 pulley is located within the second aperture to align a channel of the second pulley with a
13 passageway of the tube.

- 1 13. An exercise device, comprising:
- 2 a support; and
- 3 at least one exercise station coupled to the support, wherein the exercise station
- 4 includes a pulley mechanism, the pulley mechanism comprising:
- 5 a tube having a first aperture, a second aperture located in a sidewall, and
- 6 a passageway extending therebetween, the tube being movably coupled to the
- 7 support; and
- 8 a pulley having a first channel corresponding to the first aperture such
- 9 that the first channel receives a cord and a portion of the cord is located within a
- 10 passageway of the tube; and
- 11 a second pulley having a second channel corresponding to the second
- 12 aperture such that the second channel receives the cord and such that the cord is
- 13 essentially unaffected as the second pulley is reoriented from a first position to a
- 14 second position.
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- 16 14. An exercise device as recited in claim 13, wherein the exercise station includes a
- 17 plurality of selectable positions.
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- 19 15. An exercise device as recited in claim 13, wherein the mechanism includes an
- 20 arm that is pivotally coupled to the support.
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- 22 16. An exercise device as recited in claim 13, wherein a first end of the cord is
- 23 coupled to a load and the second end of the cord is coupled to a handle.

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2 17. An exercise device as recited in claim 13, wherein when the tube rotates, the
3 tension of the cord is substantially unaffected.
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- 1 18. An exercise device, comprising:
- 2 a resistance assembly;
- 3 a vertical support;
- 4 an exercise station movably coupled to the vertical support, the exercise station
- 5 comprising:
- 6 a tube rotatably coupled to the vertical support, the tube having a first
- 7 aperture, a second aperture and a passageway extending therebetween, the second
- 8 aperture extending through a sidewall of the tube;
- 9 a first pulley rotatably coupled to the vertical support, the first pulley
- 10 having a channel corresponding to the first aperture of the tube;
- 11 an arm rotatably coupled to the tube;
- 12 a second pulley rotatably coupled to the arm, the second pulley having a
- 13 channel corresponding to the second aperture of the tube, wherein a portion of a channel
- 14 of the second pulley is positioned within the second aperture; and
- 15 a cord extending through the first and second apertures, a first end of the
- 16 cord being coupled to the resistance assembly, a second end of the cord being
- 17 coupled to a handle configured to be grasped by a user, and an intermediate
- 18 portion of the cord extending between the first and second pulleys, wherein the
- 19 extension arm is selectively positioned between a first and second position.

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- 21 19. A pulley system as recited in claim 18, wherein as the tube rotates, the length of
- 22 the cord does not vary substantially.
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1 20. A pulley system as recited in claim 18, wherein the resistance assembly
2 comprises a weight stack comprising a plurality of selectable weights.
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1 21. A pulley system comprising:
2 a rotating tube having first and second apertures and a passageway extending
3 within the tube, wherein the tube is configured to receive a cord therethrough;
4 a pulley having a channel configured to receive the cord; and
5 means for aligning the channel of the pulley with the passageway of the tube,
6 wherein the means for aligning is coupled to the tube and to the pulley, such that as the
7 tube rotates the pulley moves therewith, and
8 wherein the means for aligning the channel of the pulley with the passageway of
9 the tube comprises an arm coupled to the tube, the pulley being rotatably mounted on
10 the arm.
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1 22. A pulley mechanism comprising:
2 a first pulley;
3 a second pulley;
4 a tube having first and second apertures and a passageway extending through the
5 tube;
6 an arm coupled to the tube at one end, the other end of the tube being pivotably
7 coupled to a support, the first pulley also being coupled to the support, such that a cord
8 extends along the first pulley, through the first aperture of the tube, out the second
9 aperture of the tube and along the second pulley.

1 23. An exercise device, comprising:
2 a support; and
3 at least one exercise station coupled to the support, wherein the exercise station
4 includes a pulley mechanism, the pulley mechanism comprising:
5 a tube having a first aperture, a second aperture and a passageway
6 extending therebetween, the tube being movably coupled to the support; and
7 a pulley having a first channel corresponding to the first aperture such
8 that the first channel receives a cord and a portion of the cord is located within a
9 passageway of the tube; and
10 a second pulley having a second channel corresponding to the second aperture
11 such that the second channel receives the cord and such that the cord is essentially
12 unaffected as the second pulley is reoriented from a first position to a second position.